Integral inequalities for s-convexity via generalized fractional integrals on fractal sets

ABSTRACT

In this study, we establish new integral inequalities of the Hermite–Hadamard type for s-convexity via the Katugampola fractional integral. This generalizes the Hadamard fractional integrals and Riemann–Liouville into a single form. We show that the new integral inequalities of Hermite–Hadamard type can be obtained via the Riemann–Liouville fractional integral. Finally, we give some applications to special means.

Keyword: Katugampola fractional integrals; S-convex function; Hermite Hadamard inequality; Fractal space